

Claims

[c1] A method for bending a wave guide comprising the steps of:

forming two angled cuts on either side of a middle pivot point having a first and second sides, said angled cuts extending through a first side of a cladding layer of the wave guide formed with at least one inner core layer and one outer cladding layer; and pivoting the wave guide at the angled cuts about the middle pivot point to make a desired angle bend in the wave guide,

whereby the middle pivot point has a reflective angled surface such that light propagating through the wave guide will be reflected and turned at the desired angle.

[c2] The method of claim 1 wherein the wave guide is a polymer optical wave guide.

[c3] The method of claim 1 wherein the wave guide is a glass optical wave guide.

[c4] The method of claim 1 wherein each of the angle cut creates an angle approximately forty five degrees symmetrically formed about an axis normal to a longitudinal

axis of the wave guide extending through a vertex of each respective angle cut.

- [c5] A wave guide of the type having a signal transmissive core element and at least one cladding layer, the wave guide having a bend comprising:
 - two angled cuts formed on either side of a middle pivot point having a first and second sides, said angled cuts extending through a first side of a cladding layer of the wave guide; and
 - the wave guide having been pivoted at the angled cuts about the middle pivot point to make a desired angle bend in the wave guide,whereby the middle pivot point has a reflective angled surface such that light propagating through the wave guide will be reflected and turned at the desired angle.
- [c6] The invention of claim 5 wherein the wave guide is a polymer optical wave guide.
- [c7] The invention of claim 5 wherein the wave guide is a glass optical wave guide.
- [c8] The invention of claim 5 wherein each of the angle cut creates an angle approximately forty five degrees symmetrically formed about an axis normal to a longitudinal axis of the wave guide extending through a vertex of

each respective angle cut.